# REMARKS

Claims 1-21 are pending.  By the present Amendment, claims 1, 17 and 20 have been amended and claim 3 has been canceled.

Prosecution has been reopened following consideration of the Appeal Brief filed on February 28, 2006.  Applicants respectfully request that the following remarks be considered and, if the remarks are not deemed persuasive, that an in person interview be granted.

## Claim Rejections – 35 U.S.C. § 102(e)

Claims 1, 4-5, 9, 12, 17 and 18 are rejected under 35 U.S.C §102(e) as being anticipated by U.S. Patent No. 6,801,536, to Foster et al (hereinafter "Foster et al").  In the "Response to Arguments" of the office action, Examiner describes an MPEG2 standard transport stream with packetized elementary stream (PES) packets and their recovery at a receiver as purportedly teaching the claimed invention, yet continues to also rely on columns 6-9 of Foster et al to purportedly teach the claimed concepts of headers, memory allocation and progress monitoring. Claim 1 has been amended herein to more clearly recite that the claimed header is in the transmitted broadcast signal and therefore not generated at a receiver, and to include the limitations of dependent claim 3 which has now been canceled.

Applicants understand use of PCR and PEG in MPEG2.  If the Examiner believes that the MPEG2 coding prior to transmission **alone** teaches the claimed concepts including headers transmitted with the broadcast signal that facilitate memory allocation and progress monitoring, then he is respectfully requested to cease relying on the disclosure of STB processing at described at columns 6 through 9 and illustrated in Figs. 2 and 3 of Foster et al in the office action and provide an explanation of how MPEG2 alone teaches these aspects of the claimed invention.  To date, the Examiner has relied on Foster et al for purportedly teaching these aspects of the claimed invention even though they are described in Foster et al with reference to processing after reception at an STB.  The office action is replete with references to columns 6

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through 8 of Foster et al which clearly explain how a **received** transport stream having PES packets is queued and sub-block headers are built (see blocks 340 and 345 of Fig. 3) **after** reception of the transport stream at the STB as indicated in block 310.

For example, the text at column 5, line 55 through column 6, line 50 of Foster et al describes processing at the receiver (e.g., set-top box (STB)) that preserves the MPEG coding in the transmitted stream **but is in addition to the MPEG coding and provided at the STB**. As described below, the sub-blocks described at column 5, line 55 through column 6, line 50 of Foster et al are generated at the STB using BTI interrupts to indicate when a selected number of bytes in the PES packets "**forming sub-blocks** have been sent to a queue." (see column 56 lines 23-25 of Foster et al). Please also note the following quoted from column 6, lines 38- 45 (emphasis added):

"Upon the issuance (330 of FIG. 3) of each BTI interrupt and as a data sub-block is sent to multiplex buffer 280, **a header is created** for each sub-block that contains the length of the header and sub-blocks, the system time clock value or other clock reference, a pointer to the previous subblock, and a header ID. **This information for the header is developed concurrently with the storage of data sub-blocks** to multiplex buffer 280" **in the STB** of FIG. 2 , as indicated at block 350 of Fig. 3, **and the headers built**, as indicated at block 340.

The Examiner's characterization of Fig. 3 of Foster on page 4 of the office action is wrong. The sub-blocks are a processing layer generated **on top of the** MPEG2 coded stream received at the set-top box (STB), and therefore **after transmission**, to allow for improved buffering and playback at the STB. The BTI interrupts correspond to when buffers are filled and read out of to a multiplexer as shown in Fig. 2 of Foster which depicts an STB. The BTIs are selected to approximate the ratio of the respective data rates of audio and video PES packets, but differ greatly in accordance with the sizes of the respective data rates of audio and video PES packets (see column 6, lines 1-26). The BTIs are, in fact, rolling interrupts that indicate when a

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given number of bytes of a **received** PES packet have been sent to a queue **at the STB <u>to form a sub-block</u>**, as stated in column 6, lines 23-25. Once the **transport stream is received**, blocks of audio and video data are **queued to buffers** (column 8, lines 14-15 and 19-21), and the STC is updated, the header for the stored block is built and concatenated with it (column 8, lines 28-29). The Examiner is requested to reconcile his contrary position with Fig. 2 depicting an STB having the queues and multiplexer and block 310 of Fig. 3, which clearly indicates reception of the transport stream at the STB prior to building sub-blocks (which represent a selected number of bytes of a PES packet for improved STB buffering), or building the sub-block headers which the Examiner has incorrectly relied on to teach the claimed concepts of allocating memory and monitoring progress of segment storage as claimed. The Examiner is also asked to reconcile his contrary position with the foregoing text at column 8, lines 14-34 of Foster et al.

In view of the foregoing, withdrawal of the rejection of claims 1, 4-5, 9, 12, 17 and 18 under 35 U.S.C § 102(e) as being anticipated by Foster et al is respectfully requested.

## Claim Rejections – 35 U.S.C. § 103(a)

1.      In the Office Action, claims 2 and 10 are rejected under 35 U.S.C § 103(a) as being obvious over Foster et al in view of U.S. Patent No. 5,732,324, to Rieger III (hereinafter "Rieger III"). Claim 2 recites generating an alert message when segments in a data file are received. As recited in claim 1 from which claim 2 depends, a data file is characterized in a broadcast signal by a header indicating the number of segments that constitute the data file. Rieger III is relied on for its purported disclosure of alerting a user when data segments have been stored in a memory device as claimed in claim 2.

Regarding claim 2, Applicants respectfully submit that Rieger III does not disclose alerting as claimed, and that the Rieger III does not overcome the deficiencies of Foster et al. Rieger III teaches sending audio programs from low power transmitters to proximate digital burst radio (PDBR) receiving units in motor vehicles. The programs have preambles identifying programs by a brief textual description and date or creation. Thus, Rieger III does not teach a header comprising information indicating the number of said segments that constitute a data file.

Rieger III merely teaches that a receiving unit can use the preamble to filter previously received programs based on the brief textual description and date of creation in the preamble. Rieger III, however, cannot use the preamble to "monitor the progress of storage of said segments" as recited in claim 1. Rieger III merely teaches determining if an entire program is received and stored, and not its progress or parts of the program.

Claim 10 recites determining which segments of a rebroadcast data file have been stored, storing those rebroadcast segments of the data file that are not yet in a memory device and ignoring those rebroadcast segments of the data file that are already stored. Rieger, III discloses filtering programs that are already captured at a receiver, but **not** determining whether parts of programs have been received or not.

In view of the foregoing, Applicants respectfully request withdrawal of the 35 U.S.C §103(a) rejection of claims 2 and 10.


2.      The Examiner has rejected claims 3, 17 and 18 under 35 U.S.C. § 103(a) as unpatentable over Foster et al view of U.S. Patent No. 6,222,841, to Taniguchi. As stated above, claim 1 has been amended to include the limitations of claim 3. Claim 17 has been amended to more clearly recite aspects of the present invention. Applicants respectfully traverse this rejection. First, the sizes of the buffers and the setting of the BTI interrupts in Foster et al are predetermined. In other words, column 6, lines 3-5 of Foster et al state that the BTI is an interrupt after processing of an arbitrary number of bytes preferably in groups of 256 bytes or multiples thereof. Thus, the Foster et al system teaches away from providing data in a header to indicate memory allocation for a selected file. Second, Taniguchi merely teaches a packet length field in a packet header to facilitate detection of the packet header. This packet length field does not appear, however, to be used for allocating memory. In view of the foregoing, withdrawal of the rejection of claims 17 and 18 under 35 U.S.C §103(a) as being obvious over Foster et al in view of Taniguchi respectfully requested.

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3.      In the Office Action, claims 6, 7 and 13-15 are rejected under 35 U.S.C §103(a) as being obvious over Foster et al in view of U.S. Patent No. 5,815,671, to Morrison (hereinafter "Morrison"). Morrison is relied on for its purported disclosure of message data codes in sent data. Applicants respectfully submit that Morrison does not overcome the deficiencies of Foster et al. Morrison does not teach or suggest a data file characterized in a transmitted broadcast signal by a header indicating the number of segments that constitute the data file, among other aspects of the claimed invention. Further, with regard to claims 13-15, the STC in Foster et al is a local System Time Clock (i.e., **local to the STB**) that is updated at the STB using the transmitted PCR data and then coded into a header (see column 7, lines 65 through column 8, lines 1-5 and 23-28). The STC of Foster et al therefore does not suggest segment codes as claimed. Accordingly, Applicants respectfully request withdrawal of this basis for rejecting claims 6, 7 and 13-15 under 35 U.S.C §103(a).

4.      Claim 11 is rejected under 35 U.S.C §103(a) as being obvious over Foster et al in view of Rieger III and Morrison. None of these three references, however, singly or in combination teaches or suggests the invention recited in claims 1 or 10, the base and intervening claims from which claim 11 depends for reasons set forth above. Applicants therefore respectfully request withdrawal of this basis for rejecting claim 11 under 35 U.S.C §103(a).

5.      Claims 8 and 16 are rejected under 35 U.S.C §103(a) as being obvious over Foster et al in view of Morrison and U.S. Patent Application Publication No. US 2003/0212996, to Wolzien (hereinafter "Wolzien"). Paragraph [0058] of Wolzien is relied on for its purported disclosure of code identification information that identifies a type of car for a user profile to facilitate an automated push information operation. Applicants respectfully submit that Wolzien does not overcome the deficiencies of Foster et al. Further, none of these three references singly or in combination teaches or suggests the invention recited in claims 1 or 13, the base claims from which claims 8 and 16 depend for reasons set forth above. For example, Wolzien does not teach or suggest partitioning of a data file in a broadcast signal into segments and providing

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headers in the transmitted broadcast signal to indicate the number of segments in a data file, as recited in both of claims 1 and 13. Applicants therefore respectfully request withdrawal of this basis for rejecting claims 8 and 16 under 35 U.S.C §103(a).

6.      Claim 19 is rejected under 35 U.S.C §103(a) as being obvious over Foster et al in view of Taniguchi and further in view of Rieger III. Foster et al and Taniguchi are deficient for the reasons stated above with respect to claims 17 and 18. Rieger III discloses filtering programs that are already captured at a receiver, but **not** determining whether parts of programs have been received or not. Further, Rieger III does not overcome the deficiencies of Foster et al and Taniguchi discussed above. Applicants therefore request withdrawal of this basis for rejecting claim 19 under 35 U.S.C §103(a).

7.      Claims 20 and 21 are rejected under 35 U.S.C §103(a) as being obvious over Foster et al in view of Taniguchi and further in view of Morrison. Claim 20 depends from base claim 17 which recites, among other elements, a portion of memory is allocated to correspond in size to the number of segments in a data file. Claim 20 recites determining that this allocated portion of memory is a selected percentage full before tuning to a scheduled rebroadcast to extract segments not yet received. Accordingly, the inherency argument presented in the office action that a storage device is "always a 'percentage full' " does not teach or suggest the allocated memory portion that is monitored for fullness before automatic tuning as claimed. Further, regarding claims 20 and 21, Morrison does not overcome the deficiencies of Foster et al and Taniguchi discussed above in connection with claim 17. Accordingly, Applicants request withdrawal of this basis for rejecting claims 20 and 21 under 35 U.S.C §103(a).

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### *Conclusion*

In view of the amendments and arguments set forth above, Applicants submit that the

present application is in condition for allowance and would appreciate early notification of the
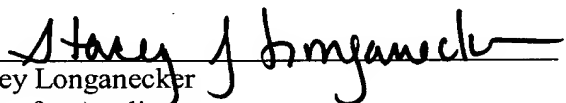
same.

### *Invitation for a telephone interview*

The Examiner is invited to call the undersigned at (202) 659-9076 if further issues remain

with allowance of this case.

### *Deposit Account Authorization*

Although no fee is believed due by submission of this paper, authorization is hereby

made to charge any fees due or outstanding, or credit any overpayment, to Deposit Account No.

**18-2220** (Order No. 40554).

Respectfully Submitted,

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